



**DATA DIGEST**  
**BITS & BYTES**

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# Leadership speaks



**SAPNA KAPOOR,**  
General Manager, Training

## 1. How do you maintain the company culture and create positivity within the workforce?

Culture is maintained by people who firmly believe in the core values of the company. I ensure that in my frequent interactions with anyone in the company, I talk about the importance of being a team player, building value in every thing one is doing, and bringing something new to the table. There are traditions that I started when the company's headcount was as low as 7 and I am still maintaining these when we are close to 1000. These small (yet impactful) traditions have enabled different individuals to adapt and add to the culture with ease.

Positivity is a very personal thing and can never be imposed on anyone. The way I keep my workforce positive is by being enthusiastic about everything we do. Encouraging people to work with passion incites ownership in them towards their task and brings positivity in their approach. Also, I have seen, focussing on the opportunities in all the challenges we face

keeps one looking to do better. This is why overcoming challenges as a team has been rewarding for me!

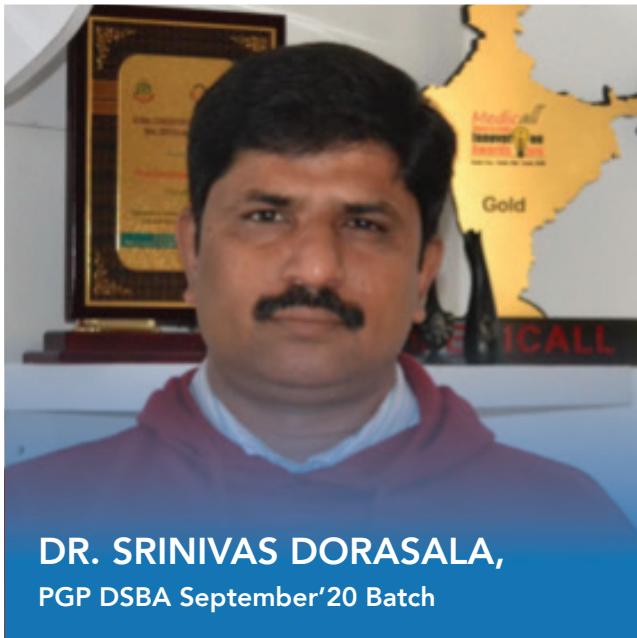
## 2. How do you lead through change?

Change is inevitable and everyone realises it sooner or later. Staying positive during the change is a challenge in itself, but it makes the journey more meaningful. In order to lead people successfully through change, the first most essential task is to make people understand the reason for the change as well as make them feel involved in the transition process. It serves well to hear out any concerns and address these, especially before big changes in the workplace are to be implemented. The second idea would be to allow for 'settling time'. While I have always expected only the best results from my team, it is important to recognize the aspect of human error, and make space for these so people can learn faster.

## 3. What is that one leadership lesson that you have learnt in your career ?

Giving and receiving constant and effective feedback has been my most essential lesson as a leader. Given my role, the ability to share crisp feedback and at the right time ensures smooth execution of even tricky tasks and strengthens channels of communication between all those involved. In addition to my own journey as a professional, I have seen many in my team growing into much more effective managers and leads as a result of this.

# Great Learning Success Story



**DR. SRINIVAS DORASALA,  
PGP DSBA September'20 Batch**

Dr. Srinivas is the co-founder of Cyclops Medtech. He shared with us how he applied the techniques learnt in the course in his upcoming product release. This is an amazing testament of how the learnings from the program are enabling the learners to get better. And in this specific case, getting better means helping patients lead a better life.

**Please tell us what problem you were facing at your workplace and how did you resolve it?**

My company is into eye tracking for diagnosis of balance disorder and neurological disorder. The data was traditionally presented as a time series graph of the eye position against time. Different patterns of eye movement related abnormalities used to be picked up by studying the graph. I found this to be a tedious task, and also that some patterns would always get missed out. So, I tried to find a solution for this problem and decided to introduce a new way to represent the information, which has been possible only because of the learnings I have got from the PGPDSBA course. I used the kde plot of time series data against its first differential, to resolve this problem.

**What other techniques did you use at your workplace which you have learnt in the DSBA course?**

I would like to talk about the proof of workings of neurons with the help of binomial distribution. Like cameras, we have an inbuilt image stabilising system that makes sure we get a stable view of the world though we are moving all the time. This image stabilising system depends on moving the eyes in the opposite direction of our head movement. For this to happen, there are two mechanisms in play. One depends on the image slippage on the retina of the eye, another depends on calculating head movement and orientation by small gyro sensors and accelerometers situated in the inner ears. Anatomical studies have studied the pathways of both these mechanisms up to the level of how they move the eyes. These have shown that the two mechanisms share a final common pathway.

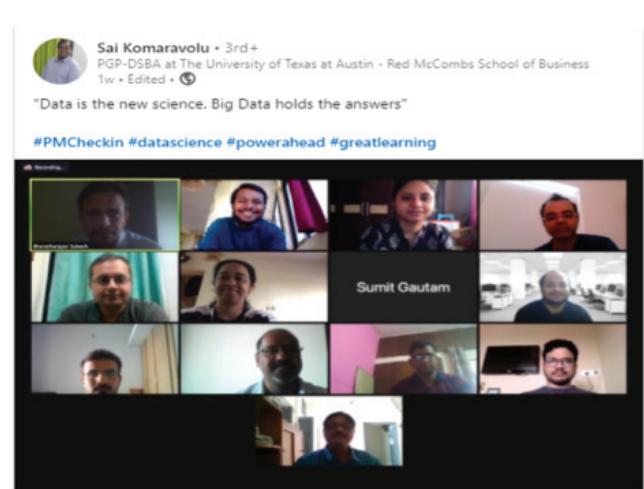
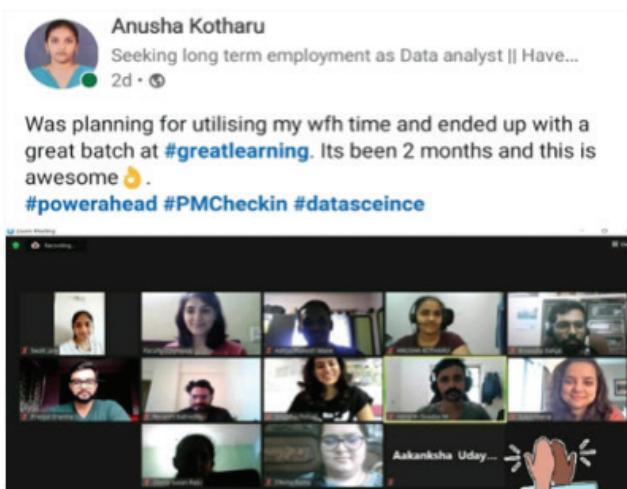
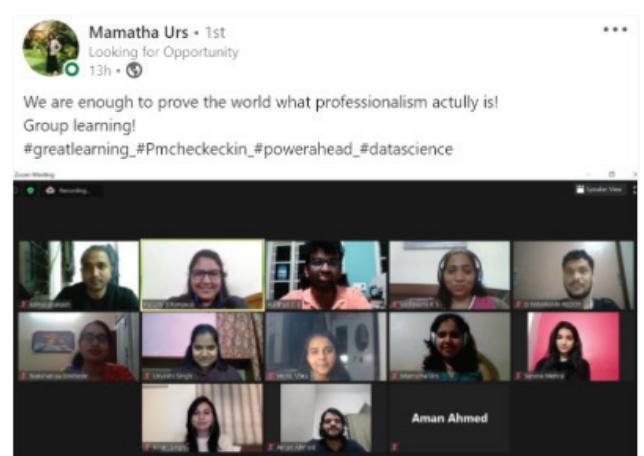
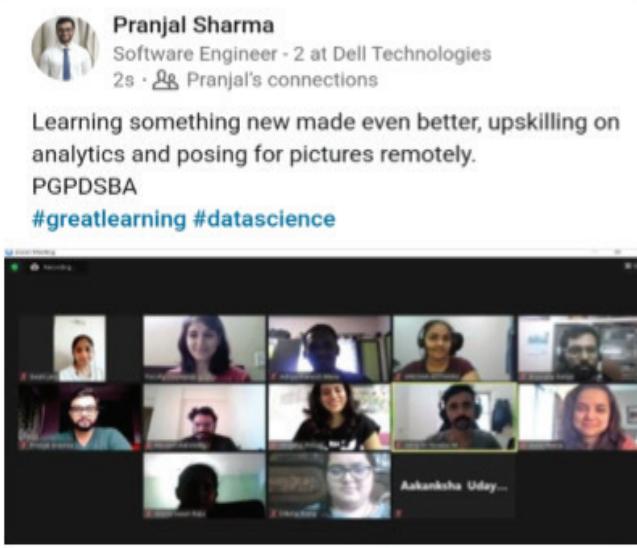
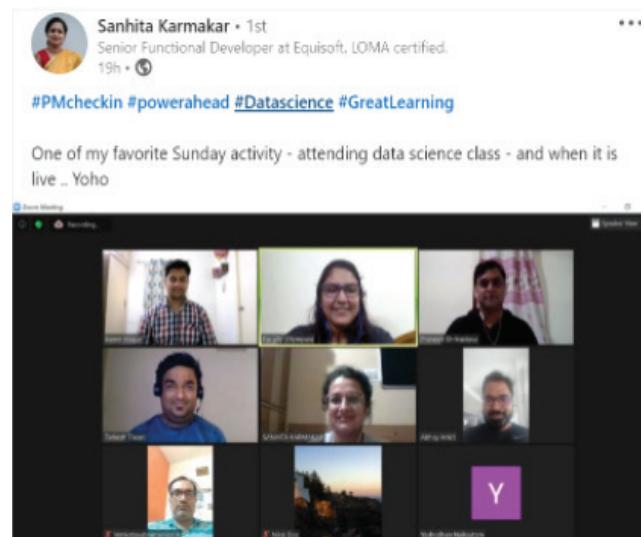
During evaluation of multiple patients with inner ear deficits, we were observing a correlation. The eye movement evoked by optokinetic stimuli was always more towards the direction in which the vestibular deficit would move the eyes. This would mean that the neurons are 'adding' the two signals (from optokinetic and vestibular). But, I thought what method to apply to this numerical data in which I am seeing only two outcomes?

This is when the binomial distribution gave the solution. Every event where the direction of vestibular nystagmus and optokinetic gain being high in the same direction were labelled as true. The other situation was false. We found in a small dataset of 23, that this was statistically significant. We will be publishing this too with a larger dataset.

I am sure that this is just the beginning, and for this, I would like to thank everyone at Great Learning.

# The Social Media Bulletin

During the program journey, the program manager of the batch gets in touch with the learners over a group video call for an informal interaction and networking purpose. This helps the learners to know their peers in a better way. Below is the glimpse of what some of the learners posted on their social media.



# Learner Engagement Initiative:

## Data Science at Work

The best way to learn anything is to apply it in your daily tasks and operations. In your current job, you would have encountered many business problems - how to automate a repetitive task, how to build more efficient processes, or how to exceed expectations in achieving your KRAs. Once you start looking for such problems around you, **Data Science** helps you find innovative solutions that drive significant business impact. Eventually, the number of problems that you will solve will help you get the reputation of a data science expert within your organization and recruiters' attention outside the organization.

**Data Science at Work is one such initiative where we encourage our learners to apply data science at work and share their stories with us.** Our focus is to help our learners to start the journey itself by applying their learning in the current jobs and their stories are a great inspiration for their peers to follow in their footsteps.

### Here are 2 DS@work stories from our learners:

Mr Suraj narrated, "one of the clients, a women's jeans apparel brand, was looking to launch themselves on Myntra. They wanted to understand what apparel sizes, color, cloth material etc. is most popular on the platform. I scraped the data from Myntra and analyzed it using techniques like ANOVA learnt in the program and suggested a marketing strategy to the management.

The insights were counterintuitive to what the management had planned. Preferences of online customers were fairly different to what

had been envisioned. The client decided to alter their strategy based on this analysis and launched their apparel store online. The Head of Operations at the brand wrote an appreciation mail to Me for my analytical approach. I am really thankful to GL, who made me understand how to apply Data Science in my current role".

Mr Likhit works as a Digital Marketing Executive with an Edtech StartUp. His role constantly demands him to be on top of getting the leads and revenue. One of his key activities is to send emails as per marketing campaigns for lead conversion. The team wasn't sure on how to segment the audience for Email marketing campaigns and the performance was always below par.

He decided it as a great opportunity to apply what he has learned. He narrated, " Our database has various attributes attached to each user, so initially, it used to be hard to segregate our lists based on user-level attributes. Using K means algorithm, I have tried to basket the audience based on user attributes into four different pools and planned for Email Communication for each basket. And the results have improved! Open Rates increased from 15% to 22%, Click Rates has gone up from 3% to 5%. It was indeed a happy moment to apply the learnings and get the results at work out of it!"

As these data science at work stories are a great inspiration for our learners as well as for us, we ensure that the best stories get published on our blogs and get shared with our learners on other social media platforms.

# Spotlight-Paper publication

## Electronic Word of Mouth - Decoding

### Customer Reviews

This is a project presented by Payal Upadhyay and Gaurav Vashisht, PGPBABI students, in the AICTE Sponsored Online International Conference on Data science, Machine learning and its applications (ICDML-2020). A follow-up paper was published in the conference journal.

Multiple studies exist where large volumes of customer reviews have been analyzed to extract useful information regarding their structures, emotion content, readability, syntax, feature content and ratings to understand the voice of the customer. However, no study exists to establish a link between what the customer perceives as a helpful feature of a product and how a marketer can exploit the same to make inroads into the customer community. The objective of this study was two-fold, where the first objective was to help sellers position a product for better reach and the second objective was to identify helpful reviews for customers which will help to make better purchase decisions by analysing the customer reviews of Mobile Holder products on Amazon. For an e-marketplace, customer reviews play a very important role in disbursing information, building trust and promoting commerce. The review data is available in abundance and there is a need to slot, categorize and to extract inference from these reviews that can be used to further the goal of the sellers as well as the buyers.

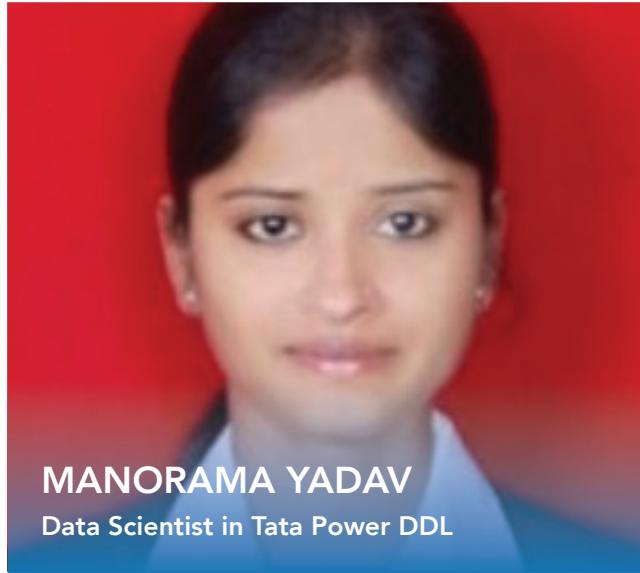
The data used in the study was a customer review dataset from Amazon for the sub-category of mobile holders, which spanned from year 2016 to 2018 and the study sample had 23,124 reviews with information on 12 variables which also includes product rating (out of 5), review helpfulness (Yes or No) and qualitative

feedback given by customers. Mobile holder category was used for the purpose of this study because it was a utilitarian category and the customer opinion extracted can be applied across this subcategory evenly.

For the first objective, a list of positive and negative words were extracted from the reviews to identify the product features that the customers were interested in. The effect of these words on the product rating given by customers were further quantified. Based upon the analysis, these words were further categorized under the 5-Ps of marketing which could help a seller to better position their product.

For the second objective, it was observed that only 5% of the total reviews were displayed to the customers on e-commerce platforms like Amazon, which were rated and upvoted as helpful by customers. The customer reviews were broken into 50 features and each feature was given a numeric score for ease of prediction. The voted reviews were penalized to remove biases and to ensure equal consideration to unvoted reviews. The reviews were further classified into three slots where 1 was considered as least helpful whereas 3 was considered as most helpful. Through this method, 32% of the reviews were identified as helpful for the customer to make their purchase decisions, which is a significant improvement over the industry standard of 5%. The study further proposed Amazon to add the "Must Read" feature apart from the "Top Reviews" and "Most Recent" already available on the Amazon platform. This study can further be extended for different types of products. Combining the reviews from multiple social media platforms could lead to more helpful insights for the buyers' and the sellers' community.

# Alumni Corner



**MANORAMA YADAV**

Data Scientist in Tata Power DDL

I transitioned my career from a non-data scientist role to a Data Scientist role. This article is about my overall experience and my learnings. I graduated with a B.tech degree in Electronics & Communication.. I got placed in an MNC in 2014. My first project was in Advanced SQL for database management. I worked in the healthcare vertical for 5 years, and I discovered I was not learning anything new or exciting on the job. The technology used in the project was very old and there was no scope of using that in other companies. Henceforth, I decided that my career needed a new trajectory.

My career path was not in one direction at that time, as I learnt Java, I worked on SQL which was monotonous. In 2017, there was a lot of buzz around Data Science, Machine Learning & Artificial Intelligence. I started exploring these and the career options associated with them. I searched for the course content, the institutions and especially the course fees. After looking at the prospectus of many institutions, I found Great Learning will be the best for me as the course syllabus was modern and comprehensive. GL had an excellent faculty base and GL is known for its brand reputation in the industry. Finally, I enrolled myself for the program.

## Things I learnt in Data Science

The journey of Data Science was long. From revising the basics of statistics to the algorithms of machine learning, all were taught and respective assignments were given so that we can use those learnings into assignments. There were multiple industry sessions where a known experienced personality from the industry discussed things about this field which meant we got a unique and valuable real-world perspective on data science. My whole learning journey was full of discussions, quizzes, group & individual assignments and the capstone project, which meant that not only was I getting comfortable with the core subject but also understanding how to apply them practically. The final capstone project helped us to implement all our learning to solve a challenging real-life problem. All this meant that once the course completed, I was industry-ready.

## Challenges during Transition

Data Science is an evolving field. New techniques are being developed on a daily basis. Staying updated with the latest tools was an ongoing challenge. I did this program along with a regular job. Balancing my time between job and studies was challenging. Along with studies, I used to devote time to articles and blogs. as well to ensure that I did not lose my edge.

## Final Notes

If you are ready to make a transition from non-data science to data science field, do proper research, find out your interest level towards data science, and find out an appropriate course curriculum. Devote some time and join a structured learning program. Along with theoretical knowledge, get your hands dirty with the real-life dataset and try to solve practical problems on Kaggle and other platforms and share your code on Github.

Please read the full article over here.

# Great Learning Journey



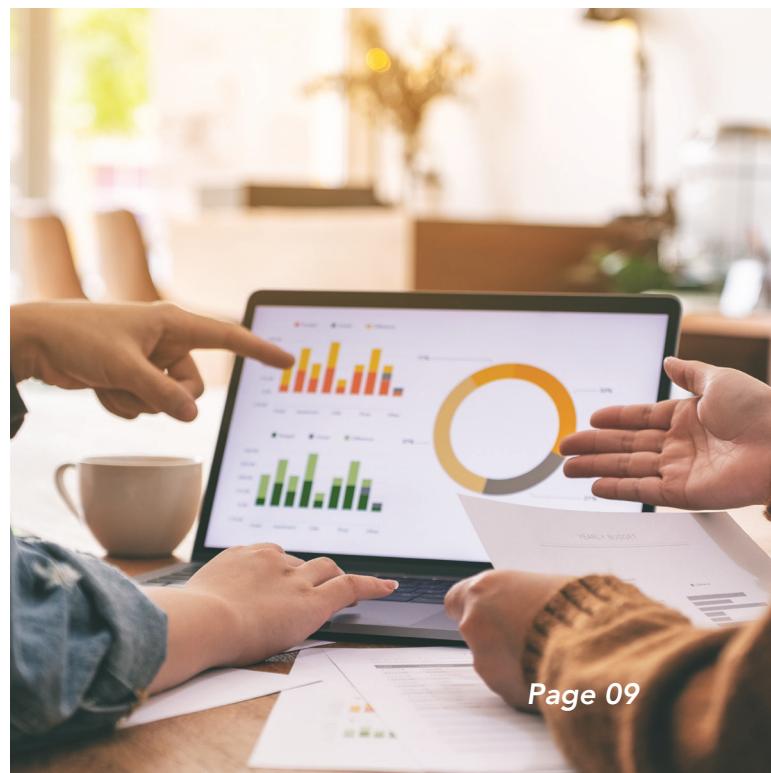
**Renukadevi** is from the PGP DSBA March 2020 batch. She is working as a faculty for statistics to management students in a B-School, and is pursuing PhD in Finance. She says that her journey with GL is incredible and here is a brief of our conversation with her.

**Renukadevi** says, “we provide placement support to our students. We observed that the expectations of the recruiters are unique and specific with respect to the roles. But our placement training was a generalized one, where we train students to take up aptitude tests, participate in GD and attend personal interviews. So, we planned to design a placement training for the final year students. To understand the requirement of the recruiters, we decided to get the inputs from their websites and the posts in social media. As this data was huge, we did **text analysis** to find what were the most required skill sets by the recruiters. Based on that, we designed the customized placement training based on the student’s background and interest. **This helped us to improve our placement percentage by 24%.**

The effectiveness of the training is also measured using paired **sample t-test** based on the scores the students have secured in the aptitude test, group discussion and interview, before and after the placement training.

I personally use **sentiment analysis** to understand the student expectations and satisfaction levels from the courses I deliver. This has helped me to design a better course experience for our students. Also, I use **several analytics and visualization techniques learned in the PGP-DSBA program** to do result analysis and report preparation. Apart from my employment related application, I am using the **supervised and unsupervised models** in my journal publications and **time series models** for my Doctoral research program project. The course has definitely improved my data handling and analytics skill, that has given me confidence in my course delivery for my students and has improved the quality of my research work.

I take this opportunity to thank GL and the mentors who guided us throughout the course”



# Employee Corner

This time we have Ritesh Sethi and Saibi Gambhir. We asked them the following 2 questions and this is what they had to say



**Ritesh Sethi**  
Manager, Operations

**What do you like most about your work?**

There cannot be a single answer to this. Since I have joined the company, I have enjoyed the ride to the fullest. If I have to pick up only one aspect, it is the opportunity to contribute to the cross functional teams. Being the SPOC of the guru community has given me that opportunity to engage Gurus to numerous verticals, like marketing, branding, networking etc. and not just restricting the engagement to operations. The sheer sense of satisfaction to contribute to the multiple growth aspects, and actually create impact, is something that stands out for me.

**What was your most recent memorable experience at work?**

I have 2 such instances here. The top most was the appreciation that the DSBA guru community got from the senior leadership team for the impact the gurus have had in cross functional initiatives. It feels amazing to see such acknowledgment. Second one had to be the selection of 14 papers from the BABI track for the ICD-ML20 Conference. It was one of the most critical initiatives I was a part of and felt outstanding to see our learners' efforts being recognized at the biggest stages.



**Saibi Gambhir**  
Assistant Manager, HR

**What do you like most about your work?**

Acquiring the best talent in the market and seeing them grow within the organisation, the feeling of building up a team by hiring a good number of resources and then seeing them being great performers is an incomparable emotion, full of satisfaction and pride. Apart from this, as part of employee engagement, maintaining the basic hygiene in the organisation through #FunatWork activities are something I enjoy the most.

**What was your most recent memorable experience at work?**

When you work in human resources management, you set an example and you have much influence over how people are treated and the company culture. You can tell your colleagues, coworkers, and employees how much you value them and their contribution. The virtual RnR felicitation ceremony that happened for the sales team became a memorable one. That is because of the happiness and excitement showcased by both the employees and their managers.

# Let's Learn



*Author:*  
**Swati Deval**

## Data Analytics in Insurance

Every person wants to protect his/her family and self against unexpected risk. Insurance industry caters to this need by guaranteeing payment for uncertain future events in exchange for a premium. Depending on which uncertain event insurance companies cater to, it is classified as life, health, property, etc. Managing risk is a major purpose of insurance companies and hence historically they were using mathematical and statistical models to analyse data to decide premium for the products. With the progress of the data storage facilities, the Insurance sector also started collecting data in large amounts, and data analytics became a day to day affair for them. There are many stakeholders in the insurance sector, and each of these stakeholders benefits from the use of Data Analytics.

### Data Analytics for Insurance Company

Underwriting, claims and finance are major departments of an insurance company that uses data analytics to improve company performance. They collect information about their customers, and identify the various segments. Predictions can be then made based on these segments about behaviour of customers. Underwriters assess risk in granting policy to a customer and decide premium based on identified risk. Fraudulent claims are a major challenge for the claim process. To find out if a claim is genuine or fraudulent manually is very time consuming.

Using Predictive Analysis, companies can identify such claims faster.

### Data Analytics for Customer or Insurer

Most companies provide self service portals to customers. It helps them to manage various policies and submit claims. There are independent websites which compare insurance products from different companies and suggest best fit products based on customer need. This helps customers to choose policy with minimum premium or get some additional cover.

### Enabling the Future with Data Analytics in the Insurance Sector

Machine Learning and AI algorithms along with vast data collected by Insurance companies are changing the way of working for the Insurance sector. Many health insurance companies encourage customers for healthy habits. Companies are able to identify low risk and high risk customers. In turn they can reward low risk customers by reducing premium, and can improve risk analysis for underwriting high risk customers.

Auto Insurance companies also give smart devices to install in cars for which policy is purchased. This device collects information about driving habits, maintenance of cars which can be used in risk assessment for next year policy and rewards good drivers.

So not only past data, but real time data collected during policy tenure will be used by insurance companies to improve their sales and profit. They will also provide a better customer experience, affordable premium to their customers.

## Discover

### Understanding consulting roles

The demand for Consulting roles is always high, even in a tough economic condition. The kind of exposure, travel, and knowledge it provides is admired by many individuals across the globe. While the demand is high, naturally the aspirations will also be very high. So, it is highly recommended for any aspiring consultant to spend a good time in preparing oneself. This article mainly focuses on developing many skills that are not like the usual process of getting a degree, earn a work experience, and look for openings with leading consulting firms. This article focuses on an effective process that will put you ahead of the queue.

### Data Science post covid 19

Life during and after COVID might be relatively similar. Technology, and in particular the internet & telecom/ISP is perhaps the only source of communication, socializing, working and almost everything else. There are two sides to COVID's impact. One to many, and many to one. In this backdrop, Data Science is an integral part of businesses, daily routines in personal lives, and maybe a new way of networking. So, let us focus on some immediate components and look at each sector independently and look at possible scenarios "During Lockdown".

### Transition in the same company

If you want to be in analytics then the First part is an opportunity and if you are working in such a company then your internal transition into analytics is an easy gateway. This article is an attempt to streamline important areas to focus, key skills to develop and right doors to knock. Hoping that you have built your reputation already.

### Understanding GAN

The learning models in machine learning can be classified into two sub-categories, viz – Discrimi-

native models and Generative models. To understand GANs, we should know about generative models and how they are different from Discriminative models. Discriminative models classify input data; i.e., given the features of an instance of data, they predict a label or category to which that data belongs. In Supervised Learning, the classification algorithms/models are examples of discriminative models.

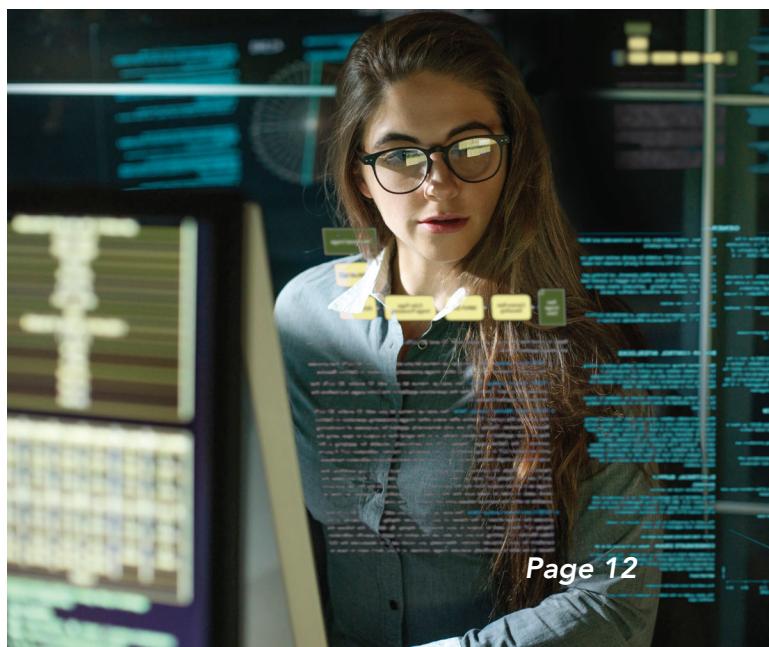
Generative Modelling is an unsupervised learning task in machine learning that involves generating new data samples from the probability distribution of training data. Given some data, the aim is to have a model for the underlying probability distribution of that data so that we can draw samples that are similar to our training data.

### Learning rate in Machine Learning

In supervised learning, to enable an algorithm's predictions to be as close to the actual values/labels as possible, we employ two things:

- 1) A cost function and
- 2) A technique to minimize the cost function.

There are popular forms of cost functions used for different tasks that the algorithms are expected to perform. Also, a popular technique used to minimize the cost function is the gradient descent method. We will understand these concepts to understand the role of 'learning rate' in machine learning.





Taking an offline apparel brand onto Myntra



Suraj scraped data from Myntra and

- He analyzed it using tools like ANOVA
- He used the insights to create a marketing strategy for the online store launch

[Start Brainstorming!](#)



Predict the number of tickets



Rahul Arora built a linear regression model to optimally plan resources for different clients.

[Start Brainstorming!](#)

## Editorial Team

Program Managers - DSBA Operations team, Great Learning



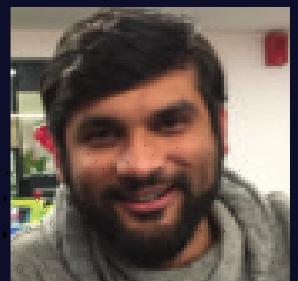
Prabhjot Kaur



Saakshi Nayak



Richa A. Sethi



Faisal Noor Khan